

REMARKS

The Office Action mailed October 27, 2003, has been carefully considered. The present amendment is intended to be a complete response thereto and to place the case in condition for allowance.

Claims 58-111 are pending. Claims 1-57 have been cancelled. Claims 79-102 have been withdrawn from consideration by the Examiner. Claim 58 has been amended to provide the clarifying change from “components” to - - component - -.

THE RESTRICTION HAS NO SUPPORT IN LAW

The Examiner made the restriction requirement final by averring that “the restricted inventions are indeed different and distinct and would impose serious burden on the office to examine” both inventions. This reasoning has no support in law. The Examiner has incorrectly applied U.S. restriction practice to the present application which is a national stage application filed under 35 U.S.C. § 371. The Examiner should apply unity of invention practice, not U.S. restriction practice to the present invention. Under unity of invention practice, a composition and a method of making the composition would not have been considered lacking in unity of invention. Further, “serious burden” is not a standard applied to the unity of invention practice. Therefore, the Examiner’s restriction is improper and has no support in law. Accordingly, the restriction should be withdrawn. Should the Examiner persist in the restriction requirement, the Examiner is respectfully requested to cite the applicable provisions of the statute and regulations upon which the Examiner relies to apply U.S. restriction practice to an application filed under 35 U.S.C. § 371.

THE CLAIMS ARE NOT OBVIOUS

Claims 58-78 and 103-111 stand rejected under 35 U.S.C. § 103(a) as being obvious over Sanders (U.S. Patent No. 6,174,595) in view of Hackman (U.S. Patent No. 5,571,628).

Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* MPEP 2143.

First, the cited references, taken alone or in combination, fail to teach or suggest all the claim limitations. In particular, the references fail to disclose 1) superfine cement matrix; and 2) a plurality of superimposed steel wool mats, as required by independent claim 58.

Sanders discloses a composite produced by mixing fibers and a matrix. The polyolefin fibers are formed in to a lengthwise tow. The lengthwise tow is spiral wrapped with additional saturated fibers to provide lateral support. The matrix is a cementitious matrix such as Portland cement.

Hackman discloses a preform containing a network of metal fibers fabricated by preparing metal fibers, assembling a mold that defines a discrete space corresponding to the size and shape of the fiber preform, conveying the fibers from the point of their preparation on the mold, compressing the fibers in the form to obtain the desired fiber density of volume percent within the form, and transporting the preform to the job site (col. 1, line 63- col. 2, line 2). The

“fiber preform” was further defined as a fiber network having a discrete, predetermined shape corresponding to the shape of a discrete product (col. 2, lines 13-15).

None of the references disclose the use of superfine cement. Sanders discloses inorganic cement matrix materials such as Portland cement, but contrary to the Examiner’s assertion, no superfine cement is mentioned. Like Sanders, Hackman merely discloses that the preform is useful in forming fiber reinforced cementitious composites, such as hydraulic and polymer cements (col. 3, line 58, to col. 4, line 4), but fails to even mention superfine cement anywhere in the disclosure.

More generally, conventional cements have been classified as hydraulic cements, such as Portland cements, alumina cements and non-hydraulic cements such as gypsum and magnesium cement and the like. Superfine cement is distinguished from conventional standard cements by the comparatively great fineness of these binders together with the limitation of their largest particles, which is usually indicated by reporting of the particles diameter at 95% by mass of the mixture, namely d_{95} (see the specification on page 3, lines 20-25). Superfine cement is important in the present invention because fiber contents above 6% by volume results in a steel wool mat that is virtually impenetrable by regular cement (see the specification on page 7, first paragraph). To serve as a proper matrix, the cement must penetrate into the wool mat. Applicant has discovered that this problem can be solved using superfine cement.

Moreover, the references fail to disclose superimposed steel wool mats. Sanders does not use steel wool mats at all. The preform of Hackman is made of a fiber network having a discrete, predetermined shape corresponding to the shape of a discrete product (see col. 2, lines 13-15). Thus, the preform of Hackman is one piece of metal fiber network, and does not contain “a plurality of superimposed, compressed steel wool mats” as required by independent claim 58.

Second, there is no motivation to combine the references. Sanders discloses polyolefin fibers which are formed into a lengthwise tow or desired size (col. 8, lines 64-65). On the other hand, the preform of Hackman is not systematically arranged, i.e. the preform is held together by random entanglement of the fibers (see col. 2, lines 25-28; and col. 3, lines 32-36). Thus, the fibers of the two references are different; and one of ordinary skill in the art would not be motivated to substitute the random entanglement of fibers of Hackman for the neatly laid and arranged fibers of Sanders.

Therefore, because the references, taken alone or in combination, fail to teach or suggest every element of the claimed invention, and because there is no motivation to combine the references, the rejection is improper within the meaning of 35 U.S.C. § 103. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

CONCLUSION

Applicants have responded to the Office action mailed October 27, 2003. A Petition for a one-month extension of time and fee therefore are file herewith. All pending claims are now believed to be allowable and favorable action is respectfully requested.


In the event that there are any questions relating to this Amendment or to the application in general, it would be appreciated if the examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 (000020-00017). In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not

accompany this response, applicants hereby petition under 37 C.F.R. 1.136(a) for an extension of time for as many months as are required to render this submission timely.

Any fees due are authorized above.

Respectfully submitted,

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